

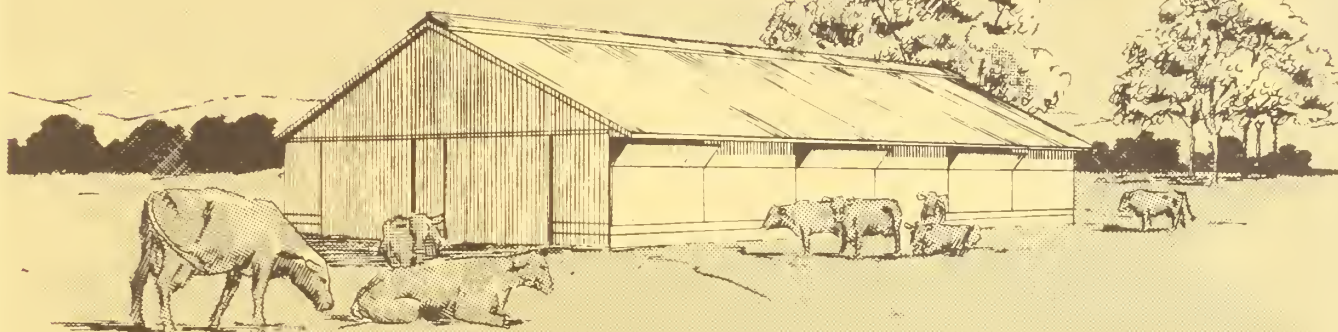
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# FREE-STALL BARN

44 and 48 feet wide



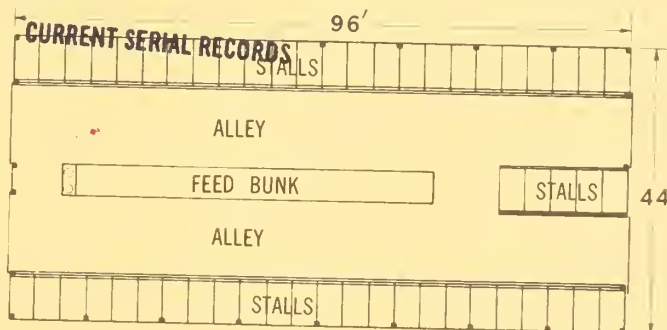
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This plan, developed at Pennsylvania State University, suggests two possible arrangements of a building for housing and feeding dairy cows. They are similar, except for the number of stall rows. The relationship of the barn to the farm milking plant depends on the judgment of the operator and the applicable local health regulations.

The silage bunk, located along the center line of the barn, may be used as a divider to separate the herd into two groups, according to production. The bunk may be filled by a mechanical conveyor from a silo or from a self-unloading wagon or truck.

In closed, uninsulated livestock buildings such as these, adequate ventilation is needed to remove moisture and to reduce the possibility of condensation occurring on the underside of the metal roofing. In this case, year-round natural ventilation is provided by slots between the trusses at the sidewalls and by a continuous ridge vent. During warm weather, hinged panels in the sidewalls may be opened to allow additional air movement.



PLAN VIEW

Working drawings may be obtained from your extension agricultural engineer at your State university. There may be a small charge to cover cost of printing.

If you do not know the location of your State university send your request to Agricultural Engineer, Federal Extension Service, U.S. Department of Agriculture, Washington, D.C. 20250. He will forward your request to the correct university.

ORDER PLAN NO. 6042, FREE-STALL BARN  
44 and 48 feet wide

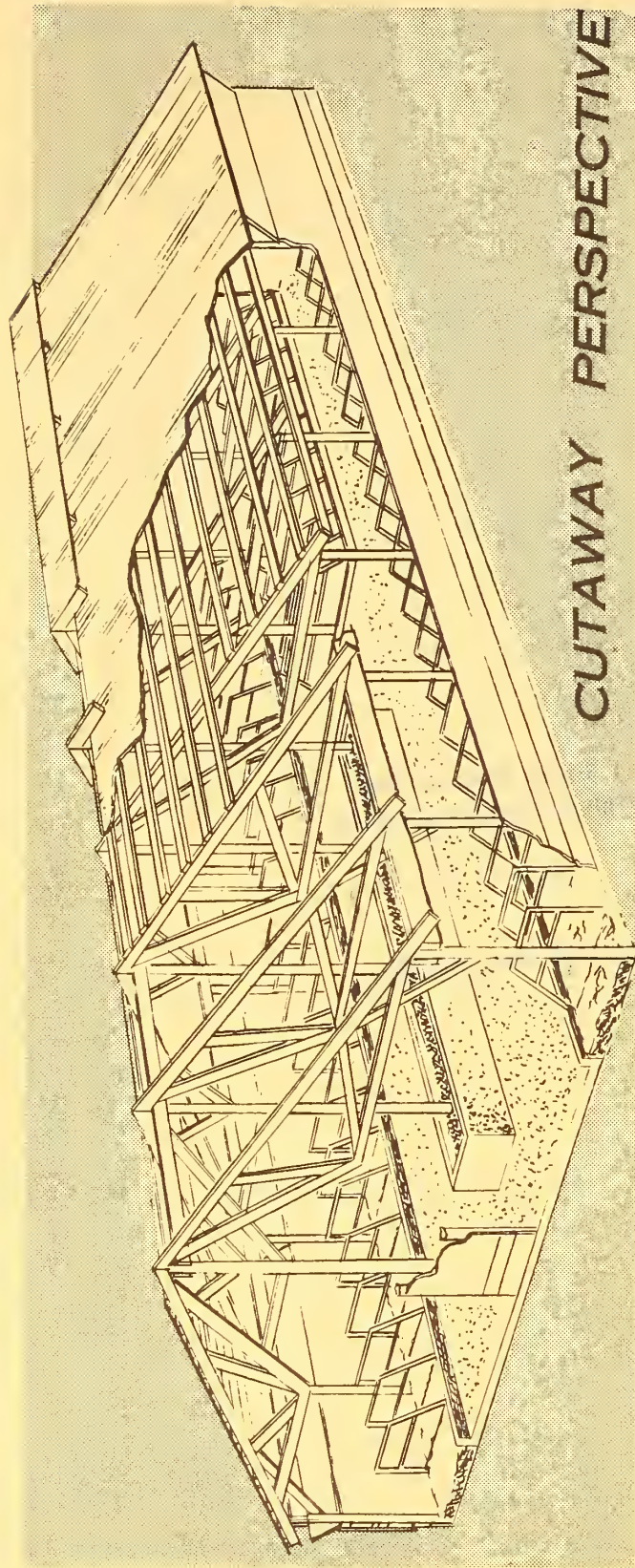
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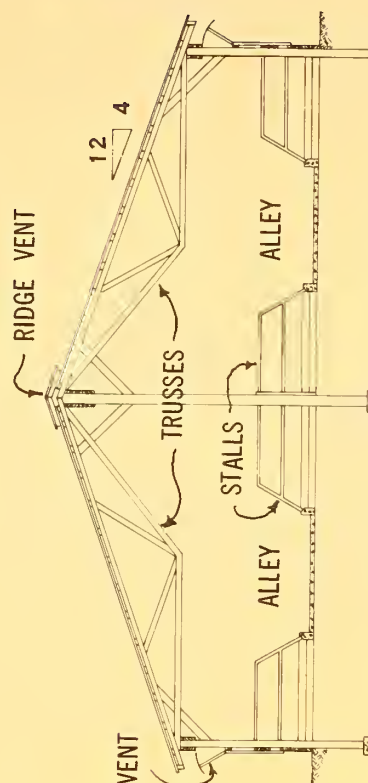
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CUTAWAY PERSPECTIVE

The length of the barn and that of the feed bunk will be governed by the size of the herd. The stalls are 4 feet wide, so the length of the building will be a multiple of this width. The length of the centrally-located bunk should at least equal in feet the total number of stalls to provide a minimum of 2 feet of feeding space for each cow.

Although pole-type construction is indicated on the plan, no structural details are included. A well-designed pole building with suitable commercially fabricated roof trusses or a prefabricated metal-framed building could be used for the barn. The structure selected must be strong enough to resist the heaviest snow and windloads which may be expected to occur in the area where the barn is to be erected. Consult your county agricultural agent or State extension agricultural engineer for specific recommendations on this subject.



CROSS SECTION

48 - FOOT WIDTH



